

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Steven Teig, et al.

Serial No.: 10/040,054

Filing Date: 1/4/2002

For: METHOD AND APPARATUS FOR
STORING ROUTES

Examiner: Magid Dimyan

Group Art Unit: 2825

**NOTICE REGARDING PREVIOUSLY SUBMITTED INFORMATION
DISCLOSURE STATEMENT**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants have submitted an Information Disclosure Statement on April 23, 2003. However, Applicants have not have not received an initialed Form PTO-1449 for the Information Disclosure Statement.

Please find attached, a copy of the Information Disclosure Statement (containing 87 references) submitted on April 23, 2003. The Information Disclosure Statement was submitted before the mailing of a first Office action. Accordingly, a fee was not required. Please also find attached a copy of the post card, which itemizes and properly identifies the IDS submitted on April 23, 2003. The post card is also stamped and shows the date of receipts by the USPTO as April 28, 2003. Accordingly, Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

Applicants believe that no fee is required for this submission. However, in the unlikely event that the Commissioner determines that the fees for this submission is

required, Applicants petition and authorize the Commissioner to charge the cost of such fees due in connection with the filing of this document to **Deposit Account No. 50-3804** referencing **SPLX.P0047**.

Dated: September 11, 2006

Respectfully submitted,

By: /Ali Makoui/

Ali Makoui
Registration No. 45,536

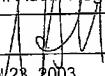
Stattler, Johansen & Adeli LLP
1875 Century Park East, Suite 1360
Los Angeles, California 90067-2514
Telephone: (310) 785-0140 x302
Fax: (310) 785-9558

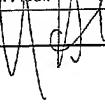
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PTO/SB/21 (6-98) (modified)
Approved for use through 09/30/00. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/040,054
		Filing Date	1/4/02
		First Named Inventor	Steven Teig
		Group Art Unit	2661
		Examiner Name	<none yet>
Total Number of Pages in This Submission	*	Attorney Docket Number	SPLX.P0047

Enclosures (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declarations(s) <input type="checkbox"/> Preliminary Amendment <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Request to Rescind Previous Non-Publication Request <input checked="" type="checkbox"/> Information Disclosure Statement and PTO-1449 Certified Copy of Priority Documents <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosures (Listed below): Postcard 87 References
Remarks:		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm Or Individual name	Mani Adeli Reg. No. 39,585 of Stattler Johansen & Adeli LLP
Signature	
Date	April 23, 2003

CERTIFICATE OF MAILING		
I hereby certify that this correspondence is being deposited with the United States Postal Services as first class mail in an envelope addressed to: Assistant/Commissioner for Patents, Washington, D.C. 20231 on this date: 4/23/03		
Typed or printed name	Mani Adeli	
Signature		Date
Signature		April 23, 2003

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Mani Adeli

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Steven Teig

Serial No.: 10/040,054

Filing Date: 1/4/02

For: METHOD AND APPARATUS FOR
STORING ROUTES

**INFORMATION DISCLOSURE
STATEMENT UNDER 37 C.F.R. § 1.97**

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Copies of the documents are also submitted herewith. The Examiner is requested to make these documents of record. Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

This Information Disclosure Statement is submitted within three months of the application filing date or before the mailing date of a first Office Action on the merits; accordingly, no fee or separate requirements are required.

This Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-1128 referencing SPLX.P0047. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: April 23, 2003

Respectfully submitted,

By: _____

Mani Adeli
Registration No. 39,585

Stattler, Johansen & Adeli LLP
P.O. Box 51860
Palo Alto, CA 94303-0728

Phone No. (650) 752-0990 x102
Fax No. (650) 752-0995

Please type a plus sign (+) inside this box App: J for use through 10/31/2002. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/040,054
Sheet	1	of	1	Filing Date	1/4/02
				First Named Inventor	Steven Teig
				Group Art Unit	2661
				Examiner Name	
				Attorney Docket Number	SPLX.P0047

U.S. PATENT DOCUMENTS					
Examiner* Initials	Cits No.	U.S. Patent Document Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication MM-DD-YYYY
1.	2001/ 0003843		A1	Scepanovic et al.	06-14-01
2.	4,615,011			Linsker	09-30-86
3.	4,673,966			Shimoyama	06-16-87
4.	4,782,193			Linsker	11-01-88
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7.	5,251,147			Finnerty	10-05-93
8.	5,281,151			Arima et al.	01-25-94
9.	5,360,948			Thornberg	11-01-94
10.	5,375,069			Satoh et al.	12-20-94
11.	5,532,934			Rostoker	07-02-96
12.	5,578,840			Scepanovic	11-26-96
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14.	5,634,093			Ashida et al.	05-27-97
15.	5,636,125			Rostoker et al.	06-03-97
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22.	5,811,863			Rostoker et al.	09-22-98
23.	5,822,214			Rostoker et al.	10-13-98
24.	5,859,449			Kobayashi et al.	01-12-99
25.	5,898,597			Scepanovic et al.	04-27-99

Examiner Signature	Date Considered
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* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbol as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO				Application Number	10/040,054
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				First Named Inventor	Steven Teig
				Group Art Unit	2661
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	SPLX.P0047

U.S. PATENT DOCUMENTS					
26.	5,914,887		Scepanovic et al.	06-22-99	
27.	5,973,376		Rostoker et al.	10-26-99	
28.	6,035,108		Kikuchi	03-07-00	
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51.	6,446,245	B1	Xing et al.	09-03-02	
52.	6,463,575	B1	Takahashi	10-08-02	

Examiner Signature	Date Considered
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Substitute for form 1449A/PTO				Application Number	10/040,054
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	1/4/02
(use as many sheets as necessary)				First Named Inventor	Steven Teig
				Group Art Unit	2661
				Examiner Name	
Sheet	3	of	3	Attorney Docket Number	SPLX.P0047

U.S. PATENT DOCUMENTS					
	53.	6,516,455	B1	Teig et al.	02-04-03
	54.	2003/0025 205	A1	Shively	02-06-03

FOREIGN PATENT DOCUMENTS						
Examiner* Initials	Cite No. ¹	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office ²	Number ³	Kind Code (if known) ⁴		T ⁵
	55.	JP	64-15947		Ouchi	01-19-89
	56.	JP	04000677		Fujiwara et al.	01-1992

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				First Named Inventor	Steven Teig
				Group Art Unit	2661
				Examiner Name	
Sheet	4	of	4	Attorney Docket Number	SPLX.P0047

NON PATENT LITERATURE DOCUMENTS

Examiner* Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	57.	A.H. Farrahi, et al., Quality of EDA CAD Tools: Definitions, Metrics and Directions, Quality Electronic Design, 2000, Proceedings of the first International Symposium on March 2000, pp 395-405.	
	58.	A. Vannelli, et al., An adaptation of the interior point method for solving the global routing problem, 2/1991, IEEE pp 193-203.	
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	60.	C. Chiang, et al., Wirability of Knock-Knee Layouts with 45° Wires, IEEE Transactions on Circuits and Systems, Vol. 38, Issue 6, pp 613-624, June 1991.	
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	65.	J. Vicente, RSR: A New Rectilinear Steiner Minimum Tree Approximation for FPGA Placement and Global Routing, Proceedings of the 24 th Euro Micro Conference, pp 192-195, August 1998.	
	66.	K. Powers et al., The 60° Grid: Routing Channels in Width d/square root 3, VLSI, 1991, Proceedings., First Great Lakes Symposium on Kalamazoo, MI, USA, pp 214-291, March 1991.	
	67.	M. Alexander et al., Performance-Oriented Placement and Routing for field-programmable gate arrays, Proceedings of the European Design Automation Conference, pp 80-85, 1995.	
	68.	M. Alexander et al., Placement and Routing for Performance-Oriented FPGA Layout, VLSI Design, Vol. 7, No. 1, 1998.	
	69.	M. Igarashi et al., A Diagonal-Interconnect Architecture and Its Application to RISC Core Design, 2002 IEEE Solid-State Circuits Conference, pp 210-460, February 2002.	
	70.	P. Dood, et al., A Two-Dimensional Topological Compactor with Octagonal Geometry, 28 th ACM/IEEE Design Automation Conference, pp 727-731, July 1991	
	71.	P. Parakh, et al., Congestion Driven Quadratic Placement, Proceedings of Design Automation Conference, 1998, pp 275-278.	
	72.	R. Putatunda et al., VITAL: Fully Automatic Placement Strategies for Very Large Semicustom Designs, Proceedings of the International Conference on Computer Design: VLSI in Computers and Processors, pp 434-439 October 1988.	

Examiner Signature		Date Considered
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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO				Application Number	10/040,054
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	1/4/02
(use as many sheets as necessary)				First Named Inventor	Steven Teig
Sheet	5	of	5	Group Art Unit	2661
				Examiner Name	
				Attorney Docket Number	SPLX.P0047

NON PATENT LITERATURE DOCUMENTS					
73.	S. Dutt, et al., Probability-Based Approaches to VLSI Circuit Partitioning, IEEE Trans. On Computer Aided Design of IC's and Systems, Vol. 19, No. 5, May 2000, pp 534-549.				
74.	Y. Sekiyama et al., Timing-Oriented Routers for PCB Layout Design of High-Performance Computers, International Conference on Computer Aided Design, pp 332-335, November 1991.				
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76.	S. Das et al., Channel Routing in Manhattan-Diagonal Model, 9 th International Conference on VLSI Design, January 1996. pp 43-48.				
77.	W. Wei-Ming Dai et al., Routability of a Rubber-Band Sketch, 28 th ACM/IEEE Design Automation Conference, 1991. pp 45-65.				
78.	H. Chen, Routing L-Shaped Channels in Nonslicing-Structure Placement, 24 th ACM/IEEE Design Automation Conference, pp 152-165, 1987.				
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83.	E. Lodi et al., Routing Multiterminal Nets in a Diagonal Model, pp 899-902, 1988.				
84.	D. Staepelaere et al., Surf: A Rubber-Band Routing System for Multichip Modules. pp 18-26, 1993.				
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86.	W. Schiele et al., A Gridless Router for Industrial Design Rule, 27 th ACM/IEEE Design Automation Conference, pp 626-631, 1990.				
87.	J. Nester, A New Look at Hardware Maze Routing, Proceedings of the 12 th ACM Symposium on Great Lakes Symposium on VLSI, pp 142-147, April 2002.				

Examiner Signature		Date Considered
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Serial/Patent No.: 10/040,054
Filing Date: 1/4/02
Atty Docket: SPLX.P0047
Applicant(s): Steven Teig

Atty/Secty: MA/s!
Date Mailed: 4/23/2003

TITLE: Method and Apparatus for Storing Routes

The following has been received by the U.S. Patent & Trademark Office on the date stamped hereon:

1. Transmittal Form
2. Information Disclosure Statement (2 pages)
3. Form PTO-1449 (5 pages)
4. (87) cited references

